

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A heat dissipation structure for a backlight module comprising a circuit board having a through hole with a light emitting diode (LED) corresponding thereto, disposed on one side of the circuit board, comprising:

a heat conducting portion thermo-conductively connected to the LED and positioned in the through hole;

a thermal conductive element disposed between the heat conducting portion and the LED,
the thermal conducting element being made of a soft material that is not damaging to the LED;
and

a heat dissipating portion thermo-conductively connected to the heat conducting portion.

2. (original) The heat dissipation structure as claimed in claim 1, wherein the thermal conductive element contacts the heat conducting portion and the LED.

3. (original) The heat dissipation structure as claimed in claim 2, wherein the thermal conductive element comprises a thermal conductive pad.

4. (original) The heat dissipation structure as claimed in claim 2, wherein the thermal conductive element comprises a layer of thermal conductive paste.

5. (original) The heat dissipation structure as claimed in claim 1, wherein the heat conducting portion and the heat dissipating portion are integrally formed.

6. (original) The heat dissipation structure as claimed in claim 1, wherein the heat conducting portion comprises a heat conducting column.

7. (original) The heat dissipation structure as claimed in claim 1, wherein the heat dissipation portion comprises a heat dissipation plate.

8. (original) The heat dissipation structure as claimed in claim 1, wherein the heat conducting portion and the heat dissipation portion are made of metal.

9. (original) The heat dissipation structure as claimed in claim 1, wherein the heat conducting portion and the heat dissipation portion are made of engineering plastic.

10. (currently amended) A backlight module, comprising:

- a housing;
- a circuit board having a plurality of through holes and disposed on the housing;
- a plurality of light emitting diodes (LEDs) corresponding to the through holes and disposed on and electrically connected to the circuit board;
- a plurality of heat conducting portions thermo-conductively connected to the LEDs and disposed in the through holes;

a plurality of thermal conductive elements disposed in the through hole and sandwiched between the LEDs and the heat conducting portions; and

at least one heat dissipation portion thermo-conductively connected to the heat conducting portions and positioned between the circuit board and the housing.

11. (original) The backlight module as claimed in claim 10, wherein the heat dissipation portion contacts the housing.

12. (original) The backlight module as claimed in claim 10, wherein the thermal conductive element contacts the heat conducting portion and the LED.

13. (original) The backlight module as claimed in claim 12, wherein the thermal conductive element comprises a thermal conductive pad.

14. (original) The backlight module as claimed in claim 12, wherein the thermal conductive element comprises a layer of thermal conductive paste.

15. (original) The backlight module as claimed in claim 10, wherein the heat conducting portion and the heat dissipating portion are integrally formed.

16. (original) The backlight module as claimed in claim 10, wherein the heat conducting portion comprises a heat conducting column.

17. (original) The backlight module as claimed in claim 10, wherein the heat dissipation portion comprises a heat dissipation plate.

18. (original) The backlight module as claimed in claim 10, wherein the heat conducting portion and the heat dissipation portion are made of metal.

19. (original) The backlight module as claimed in claim 10, wherein the heat conducting portion and the heat dissipation portion are made of engineering plastic.